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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/689,131	10/12/2000	John M. Hetzel, JR.	461568-014	8089

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EXAMINER	
STAICOVICI, STEFAN	

ART UNIT	PAPER NUMBER
1732	

DATE MAILED: 12/03/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Advisory Action	Application No.	Applicant(s)	
	09/689,131	HETZEL,, JOHN M.	
	Examiner	Art Unit	
	Stefan Staicovici	1732	

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 12 November 2003 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE. Therefore, further action by the applicant is required to avoid abandonment of this application. A proper reply to a final rejection under 37 CFR 1.113 may only be either: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114.

PERIOD FOR REPLY [check either a) or b)]

a) ☒ The period for reply expires *3* months from the mailing date of the final rejection.

b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection. ONLY CHECK THIS BOX WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

1.☒ A Notice of Appeal was filed on *November 12, 2003*. Appellant's Brief must be filed within the period set forth in 37 CFR 1.192(a), or any extension thereof (37 CFR 1.191(d)), to avoid dismissal of the appeal.

2.☒ The proposed amendment(s) will not be entered because:

(a) ☒ they raise new issues that would require further consideration and/or search (see NOTE below);

(b) ☐ they raise the issue of new matter (see Note below);

(c) ☒ they are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or

(d) ☐ they present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: *See attachment*.

3.☐ Applicant's reply has overcome the following rejection(s): _____.

4.☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).

5.☐ The a)☐ affidavit, b)☐ exhibit, or c)☐ request for reconsideration has been considered but does NOT place the application in condition for allowance because: _____.

6.☐ The affidavit or exhibit will NOT be considered because it is not directed SOLELY to issues which were newly raised by the Examiner in the final rejection.

7.☒ For purposes of Appeal, the proposed amendment(s) a)☒ will not be entered or b)☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

The status of the claim(s) is (or will be) as follows:

Claim(s) allowed: *None*.

Claim(s) objected to: *3,25 and 44*.

Claim(s) rejected: *1-2, 4-24, 26-37, 42-43, 45-58 and 60-64*.

Claim(s) withdrawn from consideration: *38-41 and 59*.

8.☐ The drawing correction filed on _____ is a)☐ approved or b)☐ disapproved by the Examiner.

9.☐ Note the attached Information Disclosure Statement(s)(PTO-1449) Paper No(s). _____.

10.☒ Other: *See attachment*

ATTACHMENT TO ADVISORY ACTION

1. Applicants' After-Final amendment filed November 12, 2003 (Paper No. 12) will not be entered since the proposed amendments present subject matter in a combination that has not been previously presented and as such would require further consideration.

Specifically, incorporating the limitation "wherein said ceramic particles have an average size of between about 3 microns and about 1000 microns to improve heat reflectivity of said helmet while maintaining strength of said helmet," previously presented in claim 58, into independent claim 1, introduces subject matter in a combination which has not been previously presented and as such would require further consideration. These noted proposed amendments neither overcome the applied rejections nor clarify the claimed invention.

Claims 1-64 are pending in the instant application.

Response to Amendment

2. Applicants' After-Final amendment filed November 12, 2003 (Paper No. 12) will not be entered since the proposed amendments present subject matter in a combination that has not been previously presented and as such would require further consideration.

Applicant argues that at "page 4 of the final Office action, it is indicated that it would have been obvious to provide **the *fabric*** (emphasis added) of the Japanese reference in the process of the Medwell reference" (see page 12 of the After-Final amendment filed November 12, 2003). Further, Applicant argues that "the text of the final Office action (as well as the previous Office actions) clearly take the position that one of ordinary skill in the art would have

provided the "fabric having ceramic particles of the Japanese '106 reference, and used such fabric in the process of the Medwell reference." As such, Applicant argues further, "Applicant can only rely upon statements included in the Office action as accurately portraying the nature of the rejection." Furthermore, Applicant argues that "the Examiner can appreciate that given the choice between taking the words of a rejection at face value or attributing some other meaning to a rejection based upon the presence of a third reference, applicant must choose [to] accept the rejection at its face value" (see page 13 of the After-Final amendment filed November 12, 2003).

In response, it should be noted that:

(a) First, as mentioned during the interview of October 2, 2003, if Applicant's interpretation of the combination of teachings is as stated above, then the rejection of claim 1 under 35 U.S.C. 103(a) of Medwell (US Patent No. 4,656,674) in view of JP 1-145106 and in further view of Fujino *et al.* (US Patent No. 5,630,230) as written in the Final Action (as well as the previous Office actions) would not have been proper because, the teachings of Medwell (US Patent No. 4,656,674) would have been redundant.

(b) Secondly, the Final rejection mailed August 12, 2003 specifically states in paragraph 6 that:

...it would have been obvious for one of ordinary skill in the art to have provided **a** thermosetting resin impregnated **fabric** having ceramic particles mixed therein **as taught** by JP 1-145106 in the process of Medwell ('674)...

Therefore, the Final rejection mailed August 12, 2003 specifically states that it is "**a** thermosetting resin impregnated **fabric**" (emphasis added) having ceramic particles of JP 1-145106 and not, as Applicant argues, "**the fabric** (emphasis added) of the Japanese reference."

Hence, it is submitted that Applicant's argument appears to stem from the difference meaning resulting from the use of "a" as opposed to "the." The Final rejection mailed August 12, 2003 *specifically states* (emphasis added) in paragraph 6 that "it would have been obvious for one of ordinary skill in the art to have provided **a** thermosetting resin impregnated **fabric** having ceramic particles mixed therein **as taught** by JP 1-145106 in the process of Medwell ('674)" and not as Applicant argues that "it would have been obvious for one of ordinary skill in the art to have provided **the** thermosetting resin impregnated **fabric** having ceramic particles mixed therein **as taught** by JP 1-145106 in the process of Medwell ('674)." As such, by using the "a," it is submitted that the statement in paragraph 6 of the Final rejection mailed August 12, 2003 is directed to "any" thermosetting resin impregnated fabric having ceramic particles mixed therein as taught by JP 1-145106. Therefore, Medwell ('674) in view JP 1-145106 teaches the use of ceramic particles in combination with **a** (any) thermosetting resin impregnated fabric, not necessarily **the** fabric of JP 1-145106.

Applicant argues that the "Fujino reference does not provide...motivation to use the ceramic particles of the Japanese '106 reference in the system of the Medwell reference" (see page 14 of the After-Final amendment filed November 12, 2003). The primary reference of Medwell ('674) teaches a process of forming a protective helmet including, providing a thermosetting resin impregnated fabric (fiber-based filler), positioning said thermosetting resin

impregnated fabric into a mold having a male and a female mold half and molding said thermosetting resin impregnated fabric into a protective helmet under heat and pressure by curing said thermosetting resin (see col. 2, line 65 through col. 3, line 14). The secondary reference of JP 1-145106 teaches a process for molding a ceramic sheet including, mixing ceramic particles with a thermosetting resin, impregnating a fibrous sheet with said mixture and molding said impregnated fibrous sheet under heat and pressure. The secondary reference of Fujino *et al.* ('230) teaches that a high polymer mixed with ceramic mixture provides increased protection from infrared radiation (see col. 1, lines 5-15 and col. 3, lines 23-28). Therefore, in view of Fujino *et al.* ('230) it would have been obvious for one of ordinary skill in the art to have provided a thermosetting resin impregnated fabric having ceramic particles mixed therein as taught by JP 1-145106 in the process of Medwell ('674) because, Fujino et al. ('230) specifically teach that a high polymer mixed with ceramic mixture provides increased protection from infrared radiation, hence improving the protective characteristics of the resulting molded helmet.

Applicant argues that the far-infrared radiation fibers of Fujino *et al.* ('230) "accelerate cooling...not increase protection from infrared radiation" (see page 14 of the After-Final amendment filed November 12, 2003). However, as shown throughout prosecution of the instant application, Fujino *et al.* ('230) specifically teach that a high polymer mixed with ceramic mixture provides increased protection from infrared radiation (see col. 1, lines 5-15 and col. 3, lines 23-28). It is submitted that motivation has been provided by the teachings of Fujino *et al.* ('230) to combine the teachings of Medwell ('674) and JP 1-145106 such that, in view of Fujino *et al.* ('230) it would have been obvious for one of ordinary skill in the art to have provided a

thermosetting resin impregnated fabric having ceramic particles mixed therein as taught by JP 1-145106 in the process of Medwell ('674) because, Fujino et al. ('230) specifically teach that a high polymer mixed with ceramic mixture provides increased protection from infrared radiation, hence improving the protective characteristics of the resulting molded helmet. It is submitted that increased protection from infrared radiation results if cooling is accelerated, because sun rays are prevented from reaching the user of said molded helmet (see col. 1, lines 5-10 of Fujino et al. ('230)).

Applicant argues that "there is no evidence that the prior art recognizes any criticality of particle size" (see page 16 of the After-Final amendment filed November 12, 2003). However, the prior art directly recognizes that the ceramic content is a result-effective variable. Specifically, JP 11-322459 teaches a moldable mixture of thermosetting resin and ceramic particles in a content of 5-30 percent by volume. It is submitted that the ceramic content determines the ceramic particle size, *i.e.*, a larger number of smaller particles or a lower number of larger particles results in the same content of ceramic particles. As such, the prior art indirectly recognizes that the ceramic particle size is a result-effective variable because, the content of ceramic particles is linked to the size of the ceramic particles. Since, ceramic content is a result-effective variable, in view of the above, it is submitted that ceramic particle size is also a result-effective variable.

Applicant's arguments with regard to the teachings of Hastings (US Patent No. 5,794,271) in view of JP 1-145106 and in further view of Fujino *et al.* (US Patent No. 5,630,230) are repetitive to the arguments brought in regard to the teachings of Medwell (US Patent No.

4,656,674) in view of JP 1-145106 and in further view of Fujino *et al.* (US Patent No. 5,630,230) that have been answered above. As such, it is submitted that Applicant's arguments presented in the After-Final amendment filed November 12, 2003 have been fully addressed.

Allowable Subject Matter

3. In view of Applicant's remarks presented in the After-Final amendment filed November 12, 2003 regarding the rejection of claims 3, 25 and 44, the rejection under 35 U.S.C. 103(a) is withdrawn. As such, claims 3, 25 and 44 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stefan Staicovici, Ph.D. whose telephone number is (703) 305-0396 (until December 22, 2003) and (571) 272-1208 (after December 23, 2003). The examiner can normally be reached on Monday-Friday 8:00 AM to 5:30 PM and alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael P. Colaianni, can be reached at (703) 305-5493. The fax phone number for this Group is (703) 305-7718.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0661.

Stefan Staicovici, PhD

Primary Examiner 12/4/03

AU 1732

December 2, 2003